



“If biodiversity is to be restored in Europe and opportunities are to be created for crop production utilizing biodiversity-based ecosystem services such as biological pest control, there must be a Europe-wide shift towards farming with minimum use of pesticides over large areas”

(Geiger, F. et al. 2010)

How to effectively reduce pesticide dependency in the EU

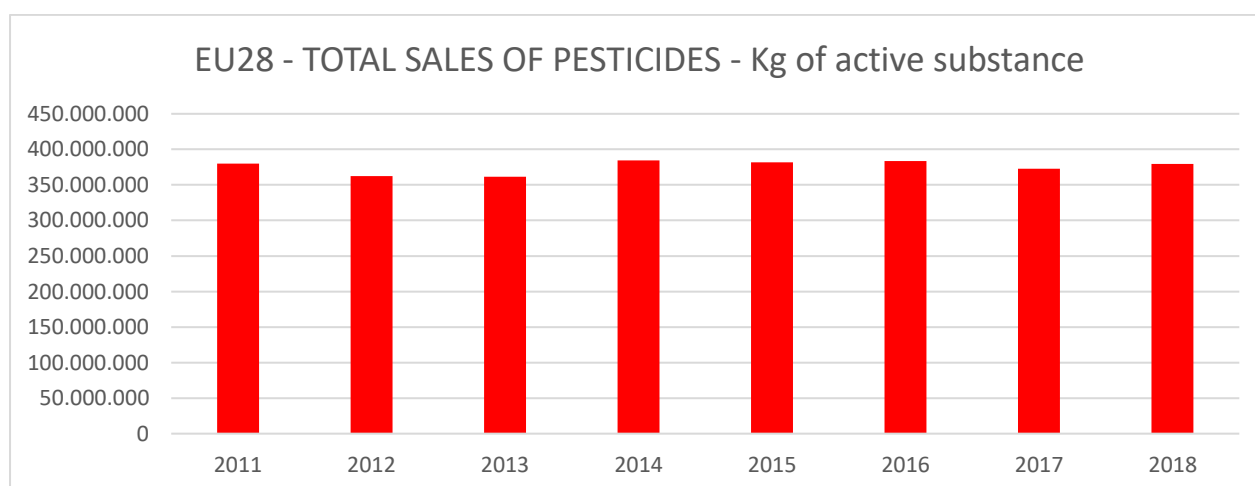
The European Green Deal published by the European Commission in December 2019 calls for a significant reduction in the risk and use of chemical pesticides as a key to kick off the ecological transition. This briefing aims at giving recommendations on how this can happen.

The European Green Deal (EGD) aims at paving the way towards a long-term vision for a sustainable society. One of the most concrete immediate actions of the EGD is the development of a Farm-to-Fork (F2F) strategy aiming at setting the foundations for a sustainable food system. F2F will set concrete measures ‘including legislative, to significantly reduce the use and risk of chemical pesticides, as well as the use of fertilizers and antibiotics’.

PAN Europe welcomes this initiative, but highlights that the EU already has a number of laws relevant to pesticide use and risk reduction and that alternatives to practices involving pesticide use already exist; however, these are often set aside in the fight for short-term profit. Therefore, we call on the European Commission to use the F2F roadmap that will be published on 20 May to kick off a new ‘EU pesticide logic’, moving away from the old practice of replacing one chemical active substance with another, towards replacing chemicals with mainly non-chemical alternatives, thus ensuring the ecological transition.

We suggest that the European Commission:

- Set an ambitious EU plan to reach an 80% reduction in pesticide use by 2030, while defining a year for final pesticide use phase-out in the European farming model;
- Ensure the objective, transparent and independent implementation of EU Regulations 1107/2009 on pesticide authorisation (including the protection of the environment and the limitation of derogations), 396/2005 on maximum residue levels (finally considering combination toxicity);
- Upgrade the Directive 128/2009 on Sustainable Use of Pesticides (SUD), fully integrate the concept of Integrated Pest Management and substantial pesticide use reductions into the Common Agricultural Policy (CAP) while involving the food chain in the implementation of non-chemical alternatives at farm level.



Source: Eurostat

1. The Farm to Fork must set overall pesticide reduction targets and a year for full phase-out

The F2F needs to set an EU-wide reduction target of 80% by 2030 and identify a year for the full phase-out of pesticide use in European agriculture.

A number of sub-indicators could be developed to reach this aim, including output and related result indicators recording the amount of hectares that farmers have engaged in organic agriculture, hectares that farmers have engaged in applying real agro-ecological practices leaving space for, and working *with*, nature. We must start by counting the number of hectares that farmers have engaged in 50%, 100% reduction in three-year period and number of hectares in organic agriculture.

This objective needs to be monitored over time by relevant impact indicators substituting the harmonised risk indicators 1 and 2, towards the development of sector-specific use statistics. Such statistics were agreed to developed a few decades ago with the establishment of CAPs agro-environmental pesticide indicator ([indicator number 7](#) consumption of pesticides), but still not in place.

The development of sector-specific use statistics (measured in kg/ha) is crucial as a tool to inform EU citizens about pesticide reductions across Europe. Moreover, sector-specific use statistics are crucial to monitor how farmers and member states are taking up Integrated Pest Management across the EU.

2. The Farm to Fork communication must include concrete guidelines on how to end the EU's dependency on pesticides

PAN Europe calls on the European Commission to include the following activities in the F2F Strategy in order to aid the ecological transition:

- An independent study assessing to what extent the European Food Safety Authority (EFSA), the European Commission and Member States are actually considering Integrated Pest Management and non-chemical alternatives before authorising pesticides for use in the EU.
- The establishment of an EU-wide database with examples of organic and biodynamic farmers from different sectors across Europe, highlighting that a pesticide-free agriculture is possible, and inspiring others to get started.
- A working group collecting evidence on the possibility of European farmers developing new business models delivering on good agronomic practices and agro-ecology like the [IDDRI study from 2018](#) and [Jan van der Ploeg study from 2019](#), as a complement to Horizon 2020 projects like [Diverimpacts](#) and [Lift-H2020](#).

3. How to ensure effective implementation of EU Regulation 1107/2009

According to Regulation 1107/2009, a pesticide active substance or pesticide product approved in the EU must cause no adverse effect on humans, animals, and the environment; all uses proposed by industry should be considered safe by EFSA; and no safer alternative (substance or practice) should be available. Nevertheless, as the Regulation is not fully implemented in practice, many toxic pesticides have passed through the authorisation process. PAN Europe calls on the European Commission to follow up on the academic paper '[Achieving a High Level of Protection from Pesticides in Europe: Problems with the Current Risk Assessment Procedure and Solutions](#)' published in the European Journal of Risk Regulation. This article highlights how a better implementation of the regulation should take place:

- Wider use of “systematic review” methods to ensure objectivity and transparency in evaluating scientific research results;
- Proper use of the “weight-of-evidence” approach to integrate all different lines of evidence, including those from independent literature;
- Evaluation and testing of the chronic toxicity of pesticide formulations as sold and used - rather than just the isolated “active” ingredients that are tested and assessed for safety in regulatory purposes – since the formulations can be far more toxic; apply an extra default factor of 10 in risk assessment for pesticide cocktails, as more than one pesticide is used in crops;

- Avoidance by regulators of the common practice of plagiarising industry's own interpretations of safety data – instead, regulators must carry out objective and independent evaluations of data.

4. How to ensure a proper implementation of Regulation 396/2005 on maximum residue levels of pesticides towards the vision of zero contamination

PAN Europe also calls for a 'zero-exposure' policy to be adopted in Regulation 396/2005. This approach is already in place for (classified) hazardous pesticides but shall be extended to all synthetic pesticides.

The [most recent data](#) from EFSA shows that just over half (52.2%) of the food tested was free of detectable pesticide residues (2018 data, EFSA). PAN Europe calls for this to be increased to 75% in 2025, 90% in 2030 and 100% in 2035 and enforced by the food chain.

This policy should also apply to imported food, ensuring that it is produced according to EU standards and banning the presence of residues of pesticides for which harmful effects on human or animal health or unacceptable effects on the environment cannot be ruled out.

5. How to ensure a revision of the EU Directive on Sustainable Use of Pesticides

A revision of the EU Directive on Sustainable Use of Pesticides is already foreseen within the directive itself. The revision must put forward that a major goal of the directive is reducing the EU's pesticide dependency; and as part of that, we call on the Commission to:

- Set overall EU, national and regional reduction use targets of 50% by 2025, reaching 80% by 2030 and a full phase-out by 2035,
- Upgrade the measures to be taken by Member States, among others introducing a ban on the use of pesticides in specific areas (article 12),
- Define what Integrated Pest Management (IPM) is and especially what it is not IPM (article 14) including certain uses (seed treatment and certain categories),
- Integrate IPM fully into the CAP (see paragraph 6) while discussing the potential of a pesticide taxation as a key measure to endorse the polluter pays approach. This is particularly important now as a way to finance the recovery of the European economy from the Covid-19 pandemic.
- Develop solid indicators for IPM compliance (paragraph 6) and pesticide use reductions (see paragraph 6).

6. How to fully integrate IPM and pesticide use reductions into the CAP

The SUD made it mandatory for farmers to apply Integrated Pest Management as from 2014. The SUD also provides a very clear timeline on how Member States need to technically assist farmers in the uptake of IPM by developing monitoring systems and crop-specific IPM guidelines, while offering training, among others. Member States need to assist farmers financially in the uptake of IPM by defining mandatory and voluntary steps that farmers need to take. However, up to now the implementation of the SUD has been a huge failure and as a result, the EU's CAP only deals with one aspect of the SUD, as since 2015 Farm Advisory Services need to be able to inform farmers about alternatives to pesticides.

The European Commission's reform proposal for the EU's CAP from 2018 does propose to make it mandatory for Member States to ensure farmers apply certain aspects of the SUD (ex. training, information and inspection of machineries and limiting the use of pesticides in sensitive areas). But conversely, the reform proposal does not propose to make the CAP's first pillar payments to farmers conditioned to the implementation of mandatory aspects of IPM, despite this being a mandatory keystone in the SUD. The importance of linking CAP and IPM was recently highlighted by the [European Court of Auditors in their report on pesticide use](#) from February 2020. Such a basic link does not appear in the leaked F2F version so far.

PAN Europe continues believing that the CAP reform proposals should be updated to ensure:

- That CAP specific objectives are enlarged to include overall use reduction targets at both EU and national level (article 6).

- That CAP first pillar payments are conditional on farmers applying IPM-levels, including among others crop rotation (at least four years with leguminous crops) and that a significant proportion of their land, non-productive areas, is set aside for nature (at least 10%), as already mentioned in [PAN Europe CAP position](#) from October 2018.
- The development of specific financial interventions for farmers that have engaged in obtaining major pesticide use reductions (50%, 100%, conversion to organic); annual CAP indicators (output and result indicators) on number of hectares engaged in pesticide use reductions should be used.
- A specific success indicator on pesticide use dependency is developed based on farmers' pesticide journals rather than on the so-called harmonised risk indicator 1 defined in article 15 of the SUD (see paragraph 7).

An ambitious target on impact indicators will stimulate Member States and farmers to finally engage towards significant reduction targets.

There is increasing evidence that pesticide use reductions are mainly triggered by the establishment of a pesticide tax. [PAN Europe's position](#) explains why the CAP has not delivered on pesticides so far. We therefore call on the EU to start recognising the importance of national pesticide taxation schemes developed in Denmark, France and Switzerland as well as risk management tools removing some of the financial risk in the transition towards systems less dependent on pesticides, like in [Veneto](#).

7. Development of EU-wide pesticide statistics to measure the 80% reduction in pesticide dependency

PAN Europe is not in favour of using the Harmonised Risk Indicator 1 (HRI1) to measure pesticide use reductions in the F2F. As mentioned in our [position paper on HRI](#), we believe that in order to deliver on measuring environmental risk, it first needs to be strongly updated and later be replaced by a sector specific indicator measures volume/ha.

The HRI1 only measures trends (using as baseline the average of years 2011-2013) in authorised active substances, without giving any sector-specific information on actual volume, therefore, the HRI1 will never be able to prove to citizens that pesticide dependency is being reduced. Neither will it be able to investigate details on the IPM uptake. Therefore, we call for the development of real pesticide use statistics to accompany - and over time replace - the HRIs.

We propose that for the year 2021, all Member States shall collect the use of pesticides in a crop-wise manner and on an annual basis, starting from the 20 most important crops in the EU and gradually collecting data for all crops. This should be done based on the agro-environmental indicators defined two decades ago (IRENE project), the EU Regulation No 1185/2009 on Pesticide Statistics and article 67 of 1107/2009. Developing specific interventions relating to pesticide use reductions in the CAP will be a supplementary tool to obtain information about actual use reductions at farm level.

At the same time, it is crucial to continue monitoring pesticide exposure for water, biodiversity and soil, as well as in humans, and as part of the latter, also monitoring the pesticide cocktails that EU citizens and their environment are exposed to daily while safe levels are not proven, putting citizens at unknown health risks.

We therefore encourage the European Commission to analyse pesticides in soil, air, water, plants, tree bark, organisms, human hair and urine, etc. Such a study should be paid for by industrial applicants.

8. How Member States must engage farmers to apply alternative techniques within the EU framework

Member States must target significant pesticide dependency reductions in their CAP strategic plan, as pesticide use is one of the indicators to monitor success of the CAP and as pesticide dependency is a priority in the F2F.

However, Member States should also target pesticide use via massive trainings and communication plans so that developing pest prevention strategies and improved pest management becomes a priority. For instance, building up soil fertility to grow healthy crops should take precedence over killing (pest, predators and pollinators). Such a move is crucial to ensure the ecological transition happens, allowing food security for future generations.

The SUD also foresees that Member States develop Nation Action Plans (NAP) with targets and actions on how to reduce pesticide dependencies; these NAPs were first developed in 2013 and revised in 2018, but as also mentioned in the [European Commission's report from 2017](#) on progress in the Member States, the uptake of real IPM among farmers remains disappointing.

Member States should use the Green Architecture of the CAP, as explained more generally in [PAN Europe's position paper from May 2019](#) for the development of sector-specific interventions.

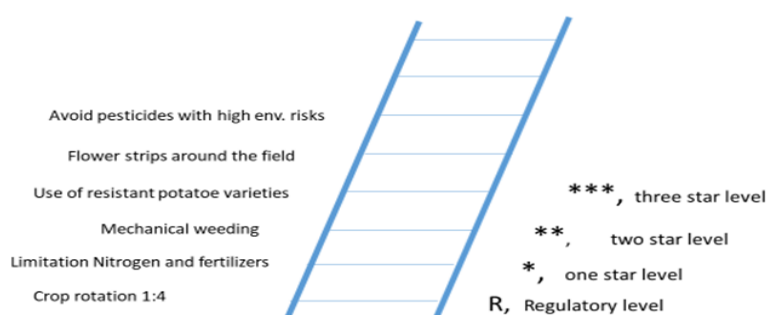
Potato production provides an excellent example of how we might reach IPM. The sector is extremely important in the EU and a very significant user of both inorganic fertilisers and plant protection products. Additionally, potatoes have a deeply emotive place within European history and today are a basic part of the European diet.

Framed around a public support for education, training, monitoring, forecasting and early warning systems, and very clearly for urgent research to support both blight resistant varieties and to stimulate biological control where necessary. A sectorial approach following the [Euro-blight project identifying best practice on IPM](#) could be:

- **Cross compliance:** mandatory crop-rotation of 1:4 (part of 'cross-compliance'), while phasing out soil pesticides.
- **Eco-scheme:** Farmers to use only resistant varieties of potatoes, gradually phasing out fungicides, cultivation methods to reduce or eliminate herbicide use as well as the use of suitable fields and the development of hedgerows to provide protection for beneficial insects.
- **Rural development scheme:** longer-term approaches in the approach of 50% reductions; 100% reductions to be reached in three years or for farmers in organic

For each step taken, the farmer obtains a financial bonus (see the star approach below) with Member States applying the different CAP financial measures. Additionally, the three-star system can be applied as a label, used by retail with its professional marketing system, in the consumer market.

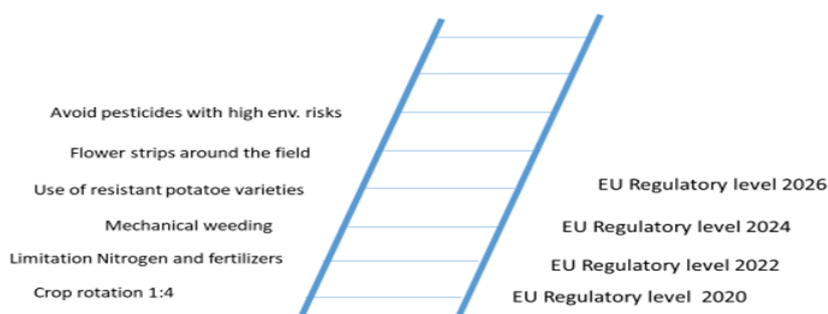
**The ladder for crop-wise implementation of Integrated Pest management
Example Potatoes.**



More generally, this step-wise approach will enable all farmers to learn and compare experiences, while front-runners show the way. Every farmer needs to make a first mandatory step on the ladder (as a point system, where the farmer needs to obtain a certain minimum to be allowed first pillar payments of the CAP), and front-runners can put one or more next steps towards implementing IPM and sustainability and get rewarded (within the eco-scheme on an annual basis and the rural development scheme when it is a longer-term engagement).

While this is included in the purpose of the [European Innovative Partnership on Agricultural productivity and Sustainability](#) this forum is too general, hiding behind fake arguments that agronomic and climate realities are too different across Europe. In the future, we encourage exchanges on these practices to become a key in a number of EU expert groups, putting agronomy to the fore in EU policymaking, in the hope that over the years additional steps will be made on the ladder and regulatory mandatory steps added (see graph of the IPM-ladder). This proposal is in line with the recent recommendations of the Court of Auditors, which stated that IPM needs to be enforced at farm level.

**The ladder for crop-wise implementation of Integrated Pest management
Example Potatoes.**



9. How food chain manager need to contribute

The European Commission shall adopt a Regulation obliging all retailers in the food supply chain to implement and control the mandatory IPM-practices for every crop, and make them responsible in case the rules are violated. Retail has the power to do this and already instructs their suppliers and farmers on the quality of the products. The suppliers/traders/auctions in turn are in direct contact with farmers and can instruct them (see graph below). Retail shall report yearly to the Commission on the progress of the sustainable practices. The Court of Auditors recommended in its recent report that records need to be kept at farm level on the implementation of IPM. PAN Europe supports this.

**The Food Chain implementing EU policy
Retail is chain leader, enforcing the rules**



Pesticide Action Network Europe (PAN Europe) was founded in 1987 and brings together consumer, public health, environmental organisations, and women's groups from across Europe. PAN Europe is part of the global network PAN International working to minimise the negative effects and replace the use of harmful pesticides with ecologically sound alternatives.

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